

Department of Defense Scorecard on Sustainability/Energy

On Oct 5, 2009, Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, directed the Office of Management and Budget (OMB) to prepare scorecards providing periodic evaluations of Federal agency performance in identifying and tracking opportunities to reduce pollution, improve efficiency, and cut costs. The January 2012 scorecard for the Department of Defense scorecard can be found at <http://www.denix.osd.mil/>.

DOD is pursuing an ambitious facility energy strategy in reducing our \$4-billion-a-year facility energy bill and improving the energy security of our installations. Our Sustainability plan is similarly designed to lower life cycle cost and enhance mission capability. DoD's Sustainability Plan and programs will enhance our mission capability, lower life cycle costs, and advance technologies and practices that further the sustainability goals of the nation. DoD is very hopeful that our future scores will improve as programs, policies and technologies that have recently been put in place or soon will be in place come to fruition.

The Department's FY13 budget includes more than \$1.1 billion for investments in conservation and energy efficiency, and almost all of that is directed to existing buildings. The lion's share (\$968 million) is in the Military Components' operations and maintenance accounts, to be used for sustainment and recapitalization projects. Such projects typically involve retrofits to incorporate improved lighting, high-efficiency HVAC systems, double-pane windows, energy management control systems and new roofs.

The Department has committed to execute nearly \$1.2 billion in third-party financed performance-based contracts (Energy Savings Performance Contracts and Utility Energy Service Contracts) in FY12-13. In response to President's Dec. 2, 2011 government-wide commitment of \$2 billion in such contracts by end of 2013, DoD plans to award approximately \$465M performance-based contracts in FY12 and approximately \$718M in FY13. While our spending is expected to make continued improvement in energy efficiency, our energy intensity may be somewhat offset by increased consumption as deployed troops return to U.S. bases from Iraq and Afghanistan.

The Department is also investing in RDT&E to improve our energy and sustainability performance. The Environmental Security Technology Certification Program will execute \$30M of demonstration projects in FY 2012 that will support reduction in energy intensity, the use of renewable energy and address energy grid vulnerabilities and has requested \$32M to continue this effort in FY 2013. These investments now will help the department meet our sustainability goals in future years.

The scorecard measured federal agencies in seven categories. DoD was green in two categories, yellow in two, and red in three others.

Green

Reduction in Potable Water

DoD reduced its potable water intensity (measured as consumption per gross square foot) by 10.7 percent from 2007 to 2011—well above the goal of 8 percent.

Reduction in Fleet Petroleum Use

DoD continued to reduce its consumption of petroleum, reaching a cumulative reduction of 11.8 percent since 2005—just shy of the 12 percent goal.

Yellow

Scope 1, 2, & 3 GHG Emissions Reductions

DoD's reductions in GHGs are directly tied to our facilities energy strategy. As we make investments to improve our energy efficiency, change our energy sources (coal to natural gas), and increase the use of renewable energy, the Department's Scope 1 and 2 GHG emissions will decline. It may take a few years for results of these investments to be reflected in GHG Scope 1 & 2 reductions.

DoD GHG Scope 3 emissions reflect improved data collection, capturing more complete employee air travel information in FY 2011 compared to the original FY 2008 baseline estimate. Use of this new system will accurately reflect future changes in employee air travel.

Red

Reduction in Energy Intensity

Energy intensity is a function of total facilities energy consumption and total gross square feet of goal subject facility space. DoD reduced its energy intensity by 2 percent—a meaningful improvement but less than the 3 percent needed to meet the annual goal. Overall, DoD has reduced its energy intensity by 13.3 percent since 2003, compared to the cumulative goal of 18 percent.

A major element of DoD's facility energy strategy is to reduce the demand (consumption) for traditional energy through conservation and energy efficiency. Efforts to reduce demand include:

- \$1.1 billion in the FY13 budget for energy efficiency improvements to existing inventory of buildings; examples include lighting retrofits, boiler plant upgrades and improvements to the building envelope.
- Planned execution of \$1.2 billion in third party financed performance based contracts to implement energy efficiency improvements in the next two years.

DoD spending is expected to continue improvement in energy efficiency but intensity may be somewhat offset by increased consumption as forward deployed troops return to U.S. bases from Iraq and Afghanistan.

Use of Renewable Energy

With respect to the NDAA renewable energy goal (produce or procure 25 percent of all electricity from renewable sources by 2025), DoD lost ground, going from 9.6 percent to 8.5 percent. The drop was partly the result of a policy decision to buy fewer Renewable Energy Credits. It also reflected a decline in the output of the 270 MW geothermal facility at the Navy's China Lake installation.

To meet the renewable energy goal and to, improve the energy security of our military installations, each of the Military Departments has committed to develop 1 gigawatt (GW) of renewable energy by 2025—for a total of 3GW. Almost all will be third party financed, using existing long term authorities.

During this fiscal year, five new projects were approved and are underway. Renewable energy production from these projects is expected to be fully online in 2014.

Sustainable Green Buildings

The greatest challenge for DoD will be meeting the green buildings goal. DoD would have to bring 3,628 buildings into compliance with the Guiding Principles High Performing Sustainable Buildings (Guiding Principles). The Department's facility investment strategy is focused on mission needs, not on upgrading buildings that already meet a mission need to meet the Guiding Principles. The Department is committed to ensuring our limited investments in new construction and major renovation are meeting the Guiding Principles and lowering life-cycle costs. However, this investment strategy will only yield modest gains in the OMB metric.

The Department is focusing on three priorities to increase the sustainability of our buildings:

- Policy: As of October 2010, DoD policy requires all new construction and major renovation projects starting in FY12 must the Guiding Principles and achieve a LEED silver or equivalent certification from a third party rating system with 40% of the points coming from energy and water saving measures.
- Standards: We are writing a new United Facilities Criteria (UFC) document for high performance buildings. This new UFC spells out the basic requirements of for all new construction and major renovation, as well as operations and maintenance of existing buildings. This standard will be incorporated into contract documents so that, working in concert with third-party rating systems, it will help guarantee DoD buildings achieve a high level of initial performance and that they will maintain that high level of performance throughout their life-cycle.
- Accounting: The Department's number buildings in the Federal Real Property Inventory (FRPP) increased from 42 to 148 in FY2011. Since OMB only uses the

data in the FRPP to measure performance, we are working to improve the data in the FRPP to reflect our inventory accurately. We are updating the UFC that provides the instructions for entering buildings into the inventory to include specific instructions for documenting compliance with the Guiding Principles.